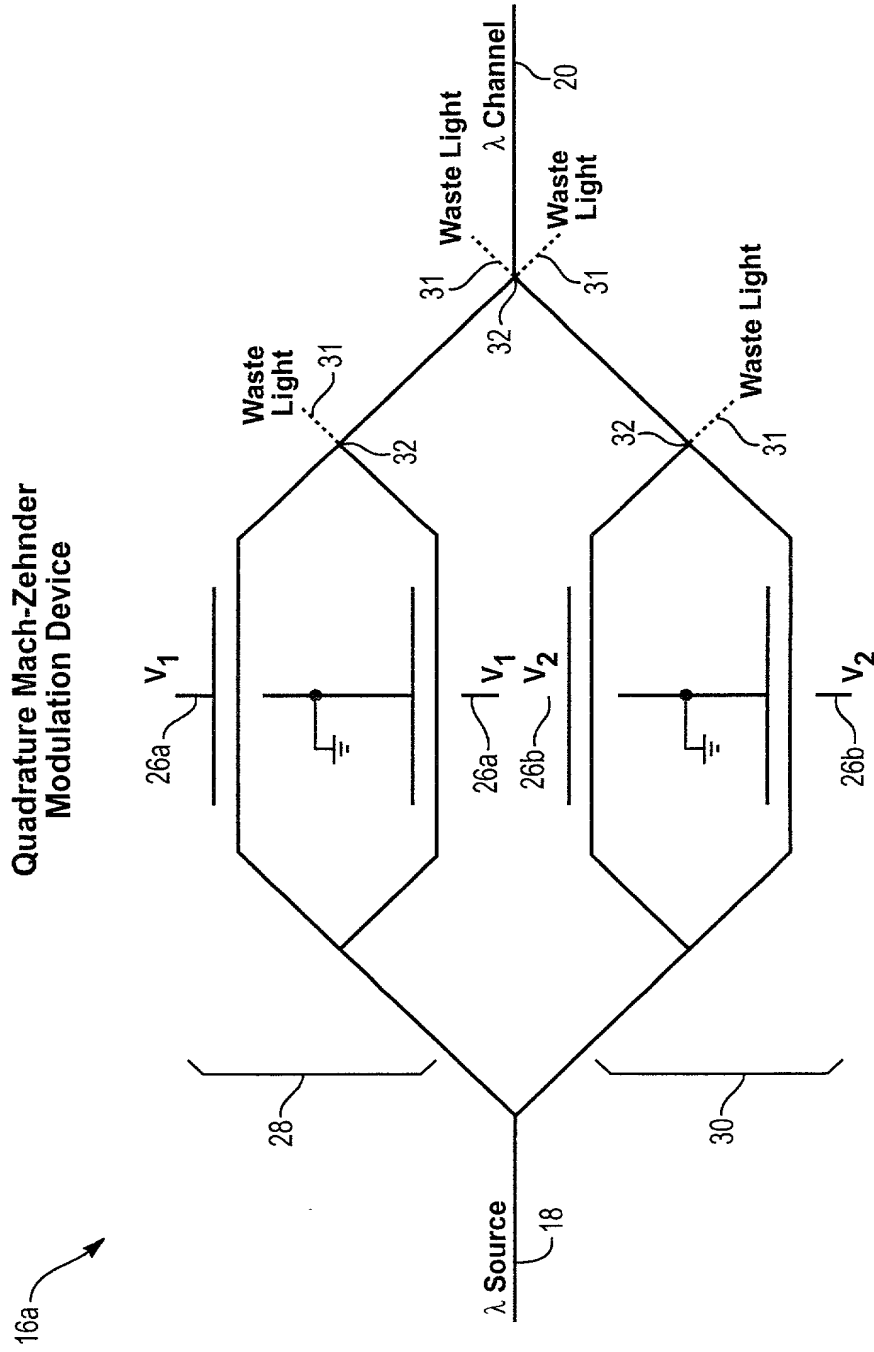


FIG. 1



**FIG. 2**

# Mach-Zehnder Device Transfer Function

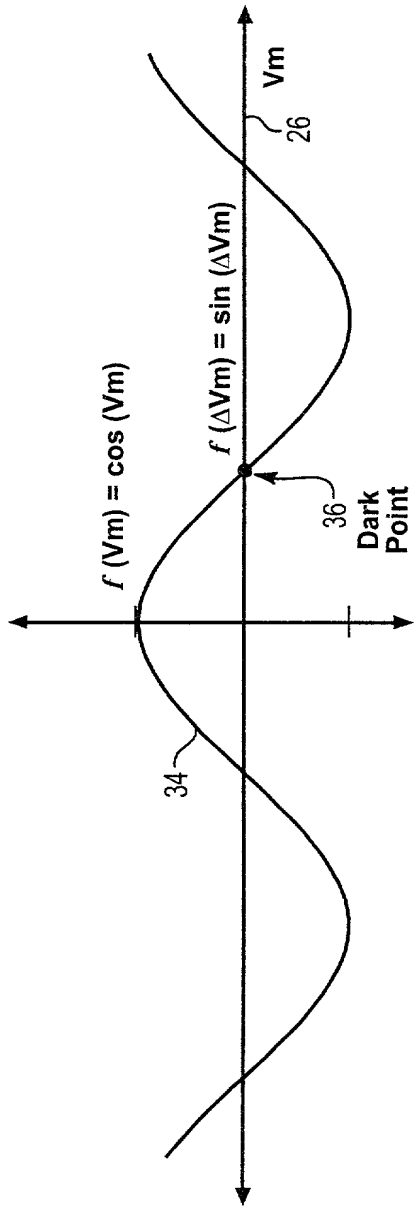


FIG. 3

12

# Modulation Synthesizer

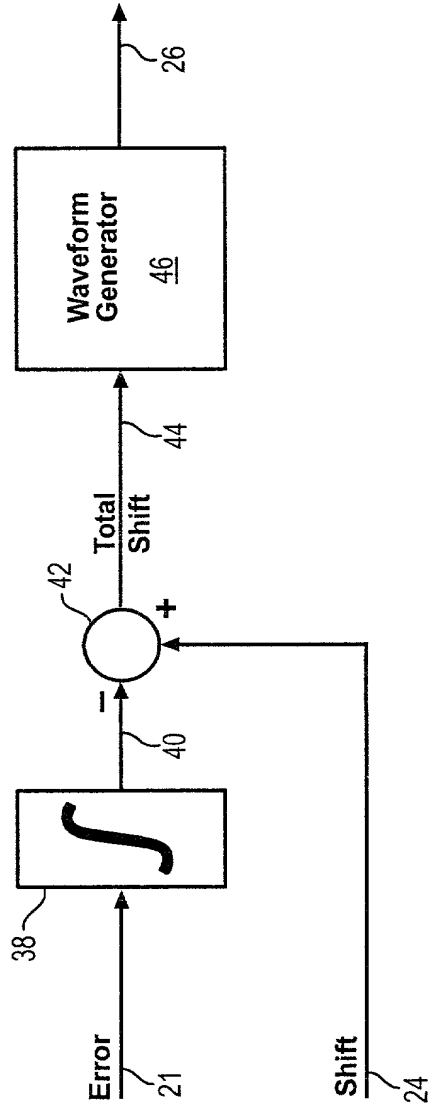


FIG. 4

12

# Quadrature Modulation Synthesizer (With On/Off Data Keying)

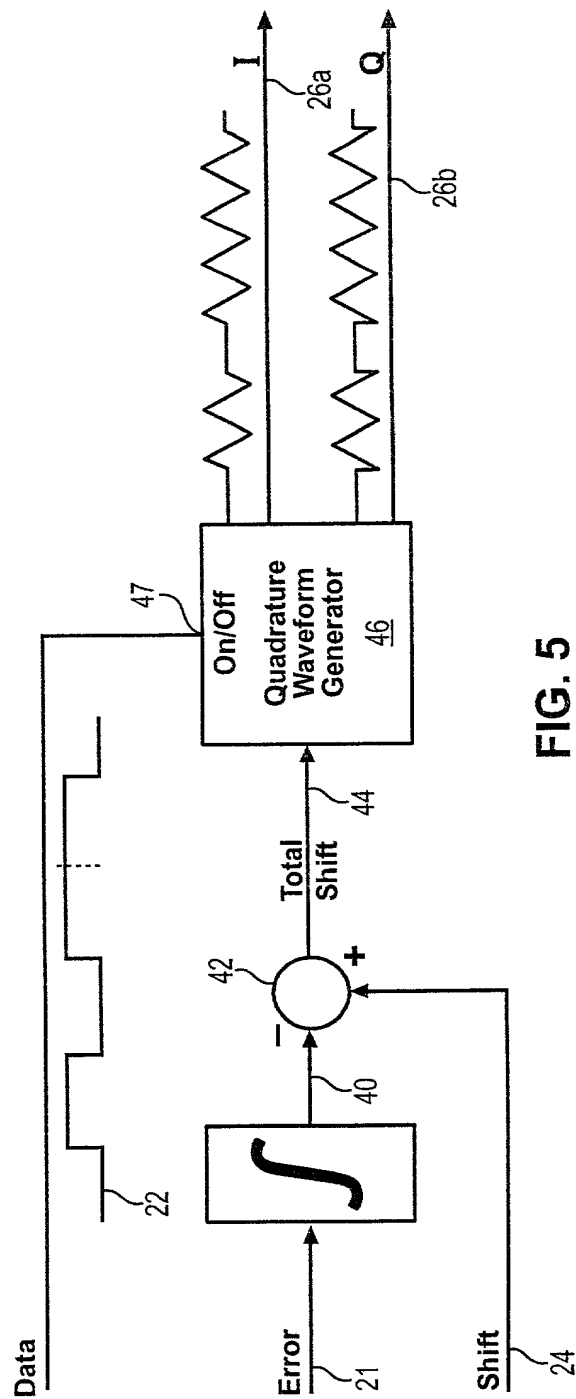


FIG. 5

# Phase Modulation Device

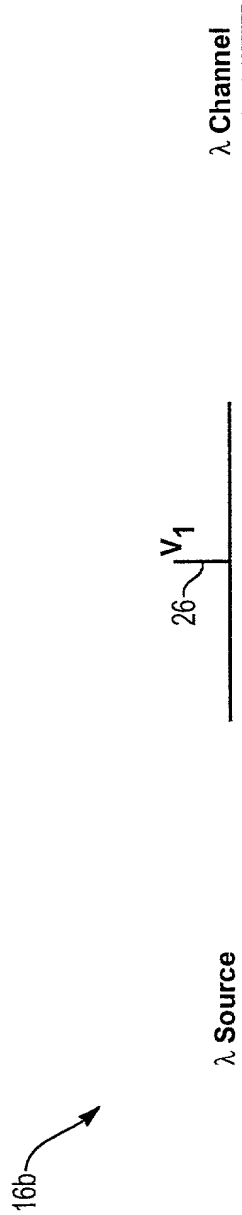


FIG. 6

# Modulation Synthesizer (With Frequency Shift Keying)

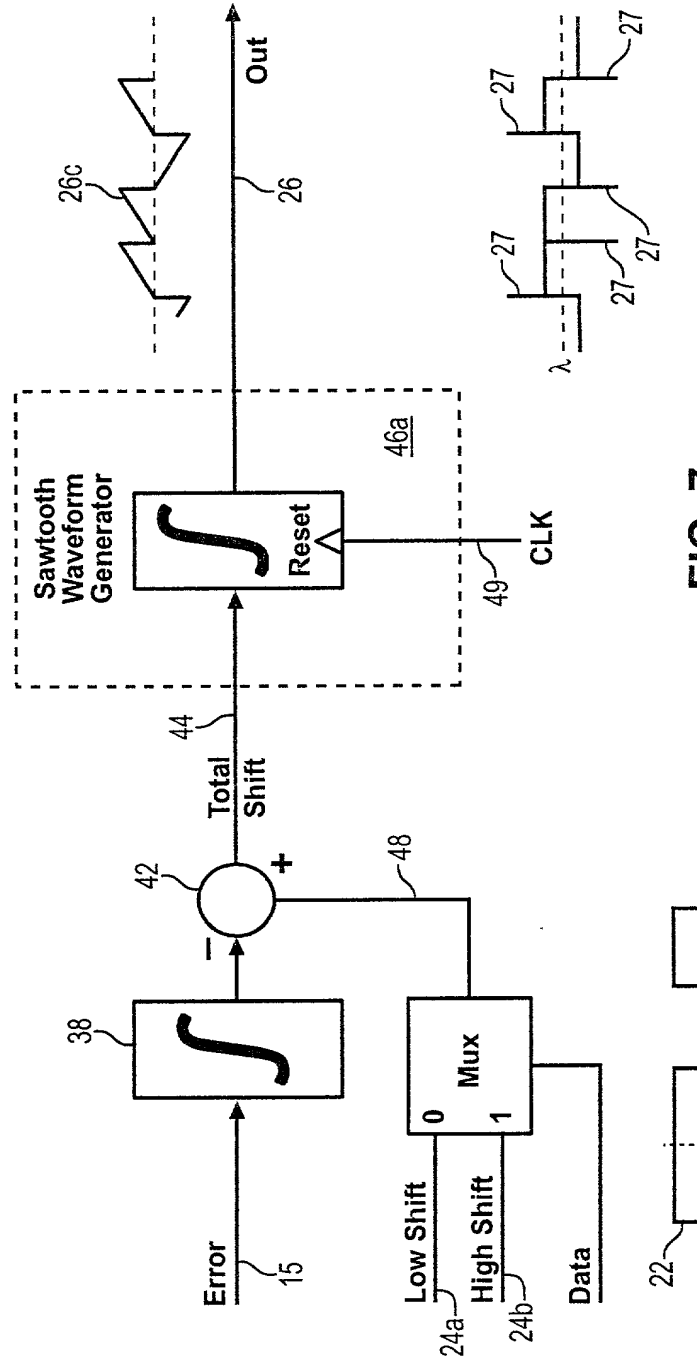


FIG. 7

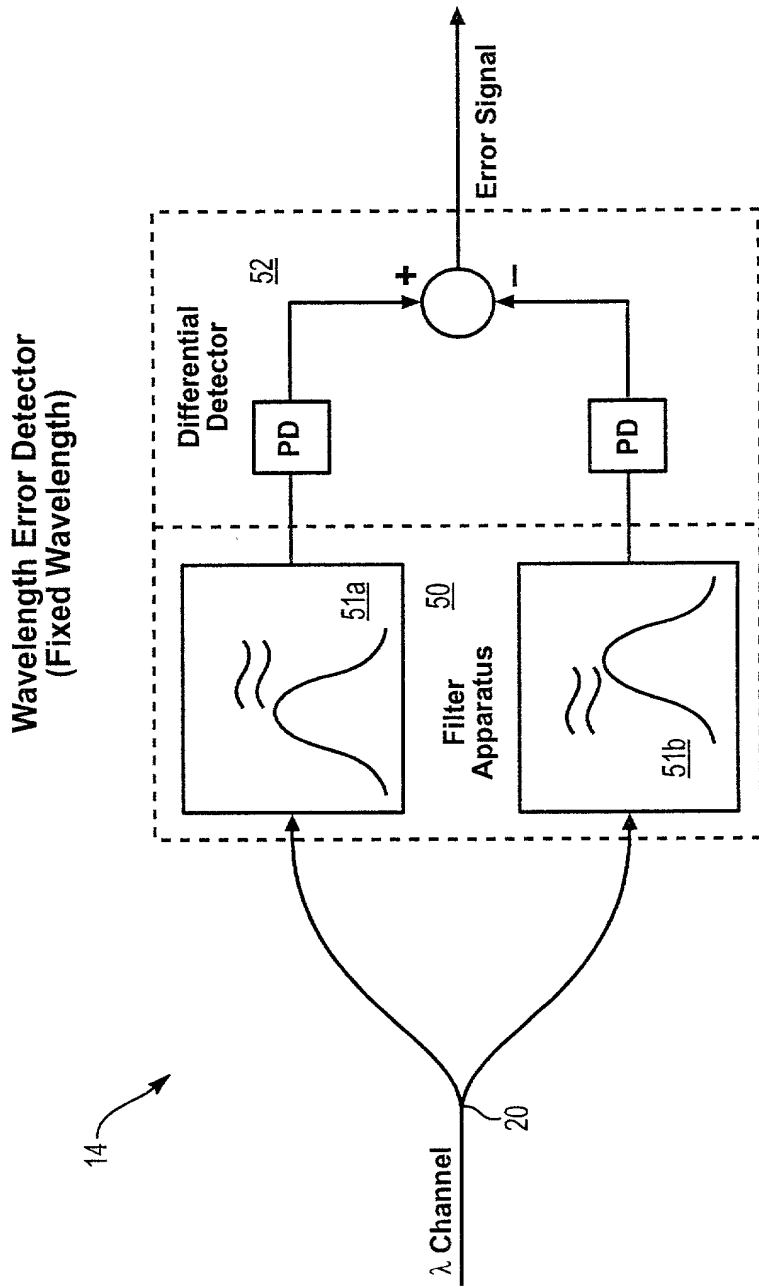
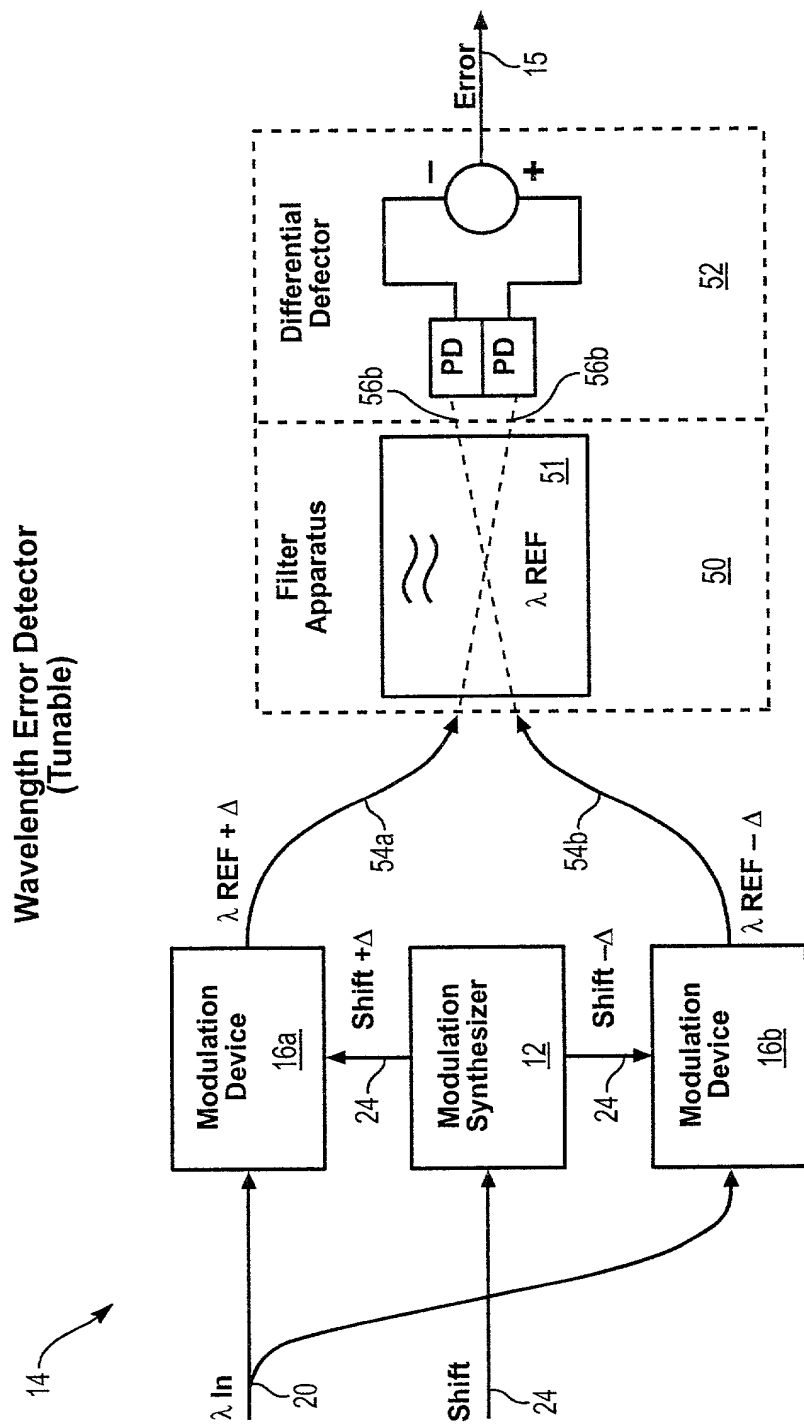


FIG. 8





**FIG. 9**

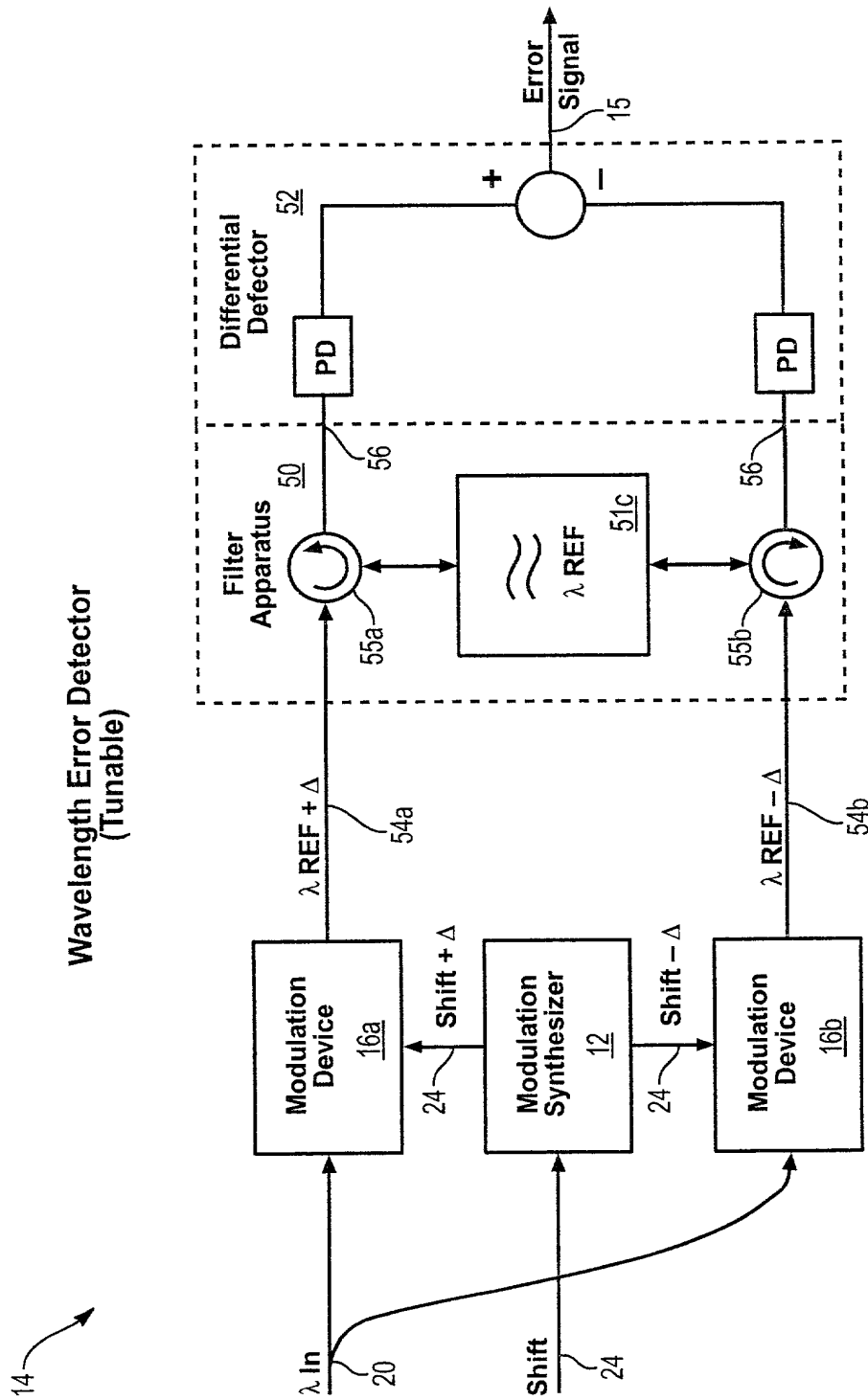


FIG. 10

# Channel Allocation Mechanism

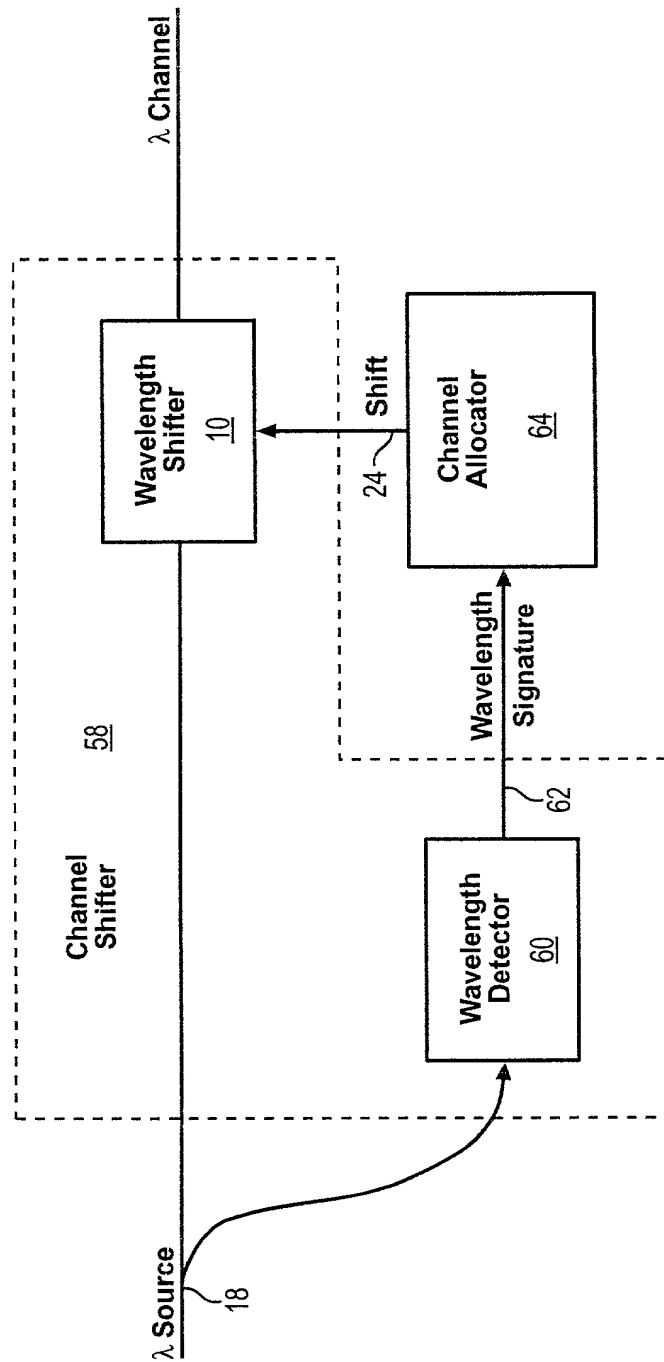


FIG. 11

70

# Tunable Wavelength Stabilized Transmitter

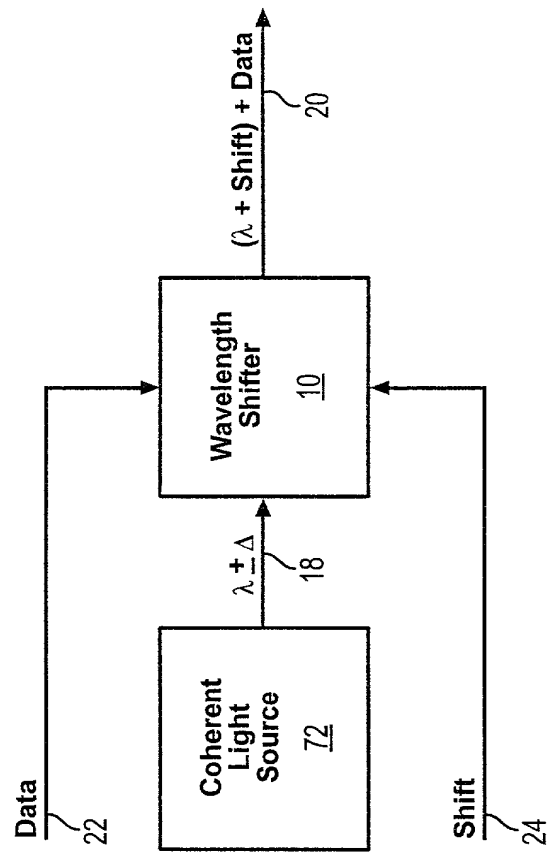


FIG. 12

Recursive Wavelength Shifter

74

# Recursive Wavelength Shifter

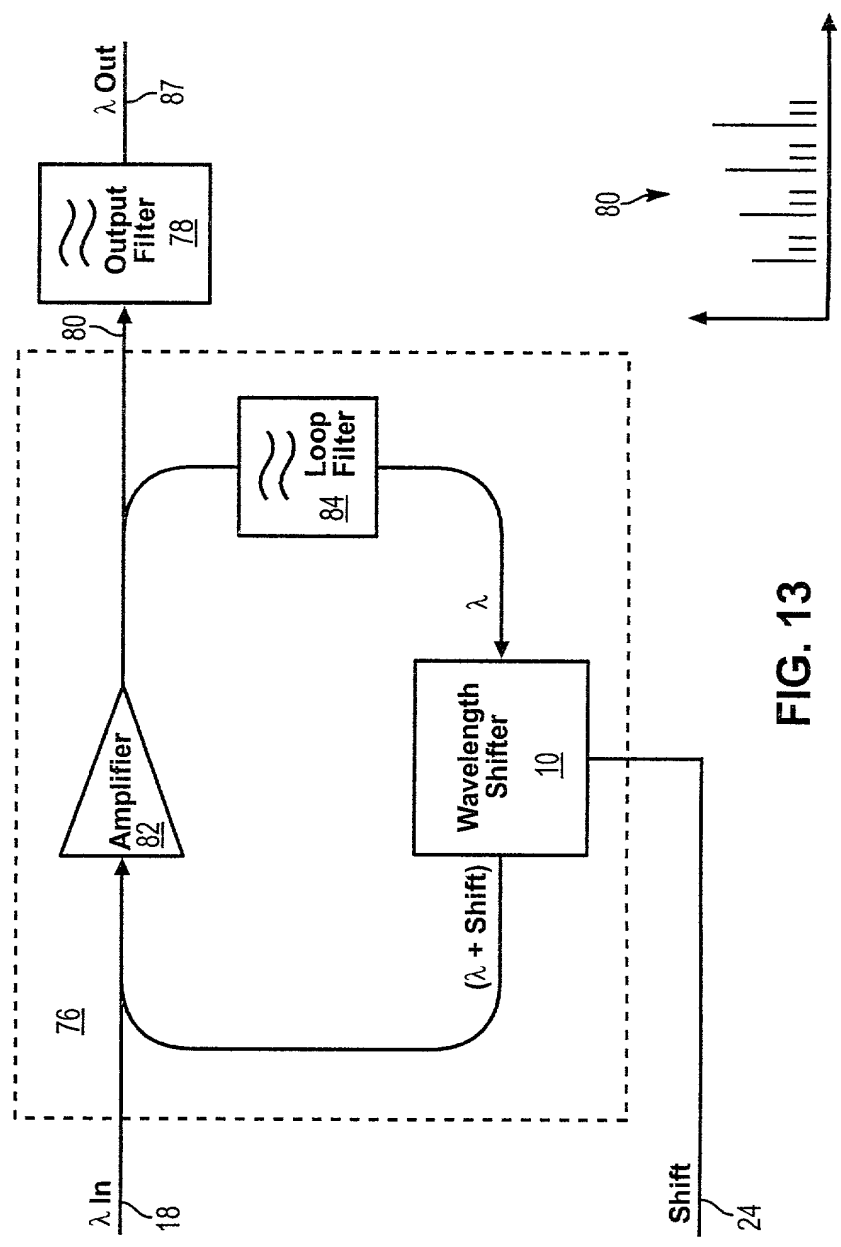


FIG. 13

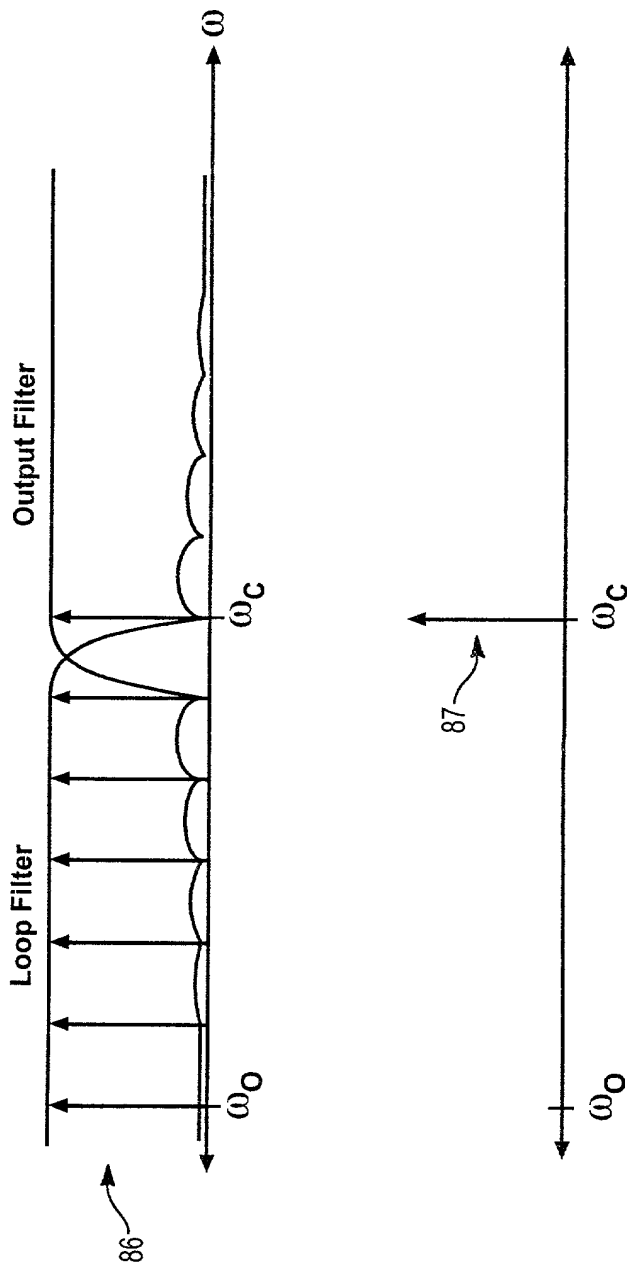


FIG. 14